

NORTH PACIFIC OCEAN, MARCH 1933

By WILLIS E. HURD

Atmospheric pressure.—Pressure during March 1933 was lower than in the preceding month over the Aleutian region and along the entire American Pacific coast, but was higher than in February at Honolulu and Midway Island. No departures for the month exceeded 0.10 inch, however, in any part of the North Pacific.

The Aleutian cyclone was central east of the Peninsula of Alaska (Kodiak, 29.64 inches). Of the various fluctuating lows composing it, the greatest depths were attained generally near the middle and toward the end of the month. The Pacific anticyclone extended across the ocean in middle latitudes, with the crest lying between the one hundred and eightieth meridian and the California coast.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean, March 1933, at selected stations

Stations	Average pressure	Departure from normal	High-est	Date	Lowest	Date
	<i>Inches</i>	<i>Inch</i>	<i>Inches</i>		<i>Inches</i>	
Point Barrow.....	30.12	-0.03	30.78	1	29.24	16
Dutch Harbor.....	29.73	+0.03	30.56	9	28.68	30, 31
St. Paul.....	29.75	+0.02	30.60	9	28.90	30, 31
Kodiak.....	29.64	-0.05	30.68	8	28.74	29
Juneau.....	29.84	-0.10	30.57	8	29.09	29
Tatoosh Island.....	29.97	+0.01	30.52	4	29.31	11
San Francisco.....	30.10	+0.04	30.36	3	29.84	11
Mazatlan.....	29.91	-0.09	30.02	24	29.82	15, 21
Honolulu.....	30.07	+0.03	30.22	18	29.72	3
Midway Island.....	30.10	+0.03	30.26	28, 29	29.50	2
Guam.....	29.84	-0.06	29.92	29	29.78	15
Manila.....	29.87	-0.08	29.96	29	29.80	24, 25
Naha.....	30.03	+0.03	30.26	13	29.72	25
Chichishima.....	30.00	.00	30.22	29	29.70	25
Nemuro.....	29.95	-----	30.32	9	29.36	17

NOTE.—Data based on 1 daily observation only, except those for Juneau, Tatoosh Island, San Francisco, and Honolulu, which are based on 2 observations. Departures are computed from best available normals related to time of observation.

Cyclones and gales.—March as a whole was much stormier over the North Pacific than February, particularly over the western part of the northern and middle routes lying roughly between the central Aleutians and the Japanese Islands. In that region 20 to 30 percent

of the days in March had gales, the majority of which were of force 10. East of northern Japan there were, in addition, gales of force 11 in a few localities on the 19th and 22d, and a considerable region was swept by gales of forces 11-12 on the 17th. East of the Kuril Islands snowstorms were frequent and heavy, and mostly accompanied by gales, from the 9th to the 22d.

The American steamer *New York*, westbound, reported thick snow and high winds for 18 hours on the 9th and 10th, near 49°-48° N., 168° to 167° E.; 38 hours on the 14th and 15th, near 45° N., 157° to 152° E.; 11 hours on the 17th, near 43° N., 145° to 143° E.; and several hours on other days between the 11th and 18th.

East of the one hundred and eightieth meridian gales decreased in number, and for the most part also in intensity, toward the American coast, forces 8 and 9 constituting the major portion. The exceptions were winds of forces 11-12 south of the central Aleutians on the 9th and 27th; near 50° N., 155° W. on the 22d; and south-east of Dutch Harbor on the 23d. Whereas in February the region south and southeast of the Peninsula of Alaska was the stormiest of that month, in March, except on the 22d and 23d, it seems to have been freer than usual of winter gales.

Off the coast of northern California and Oregon gales of force 8-9 were reported on the 10th and 14th.

Northers and monsoons.—A moderate norther occurred in the Gulf of Tehuantepec on the 1st. Northeast monsoons of fresh gale force were reported in the Taiwan Channel and thence northward for some distance along the China coast on the 5th to 7th.

Fog.—March was the first month since September 1932 during which an appreciable amount of fog formed along the northern routes from midocean westward. Extended fog masses occurred between 170° W. and 160° E. from the 5th to 9th. In the neighborhood of Midway Island fog was encountered on the 26th to 28th. Scattered fogs were observed over the northeastern quarter of the ocean. Along the American coast fog was reported on 11 days off the entire length of the United States, and on 5 days off Lower California.